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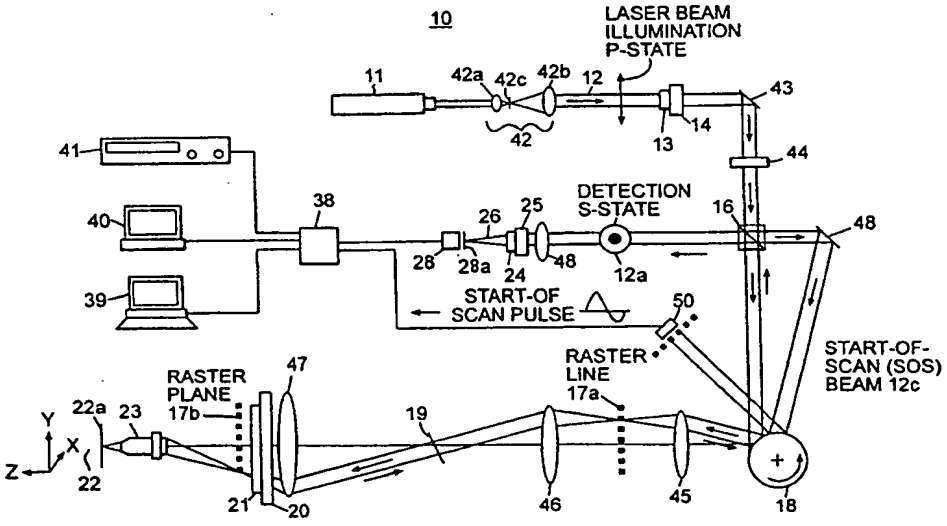
(54) Title: SYSTEM AND METHOD FOR ENHANCING CONFOCAL REFLECTANCE IMAGES OF TISSUE SPECIMENS



(57) Abstract

A confocal scanning microscope system (10) using cross polarization effects and an enhancement agent (acetic acid) to enhance confocal microscope reflectance images of the nuclei of BCCs (basal cell carcinomas) and SCCs (squamous cell carcinomas) in the confocal reflectance images of excised tumor slices. The confocal scanning microscope system having a laser (11) for generating an illumination beam (12), a polygon mirror (18) for scanning the beam to a tissue sample (22) and for receiving a returned beam from the tissue sample and detector (28) for detecting the returned beam to form an image. The system further includes a half–waveplate (13) having a rotatable stage (14) and a quarter–wave plate (21) having a rotatable stage (20) disposed in the optical path of the illumination beam and at least a linear polarizer (24) having a rotatable stage (25) disposed in the optical path of the returned beam from the tissue sample.